



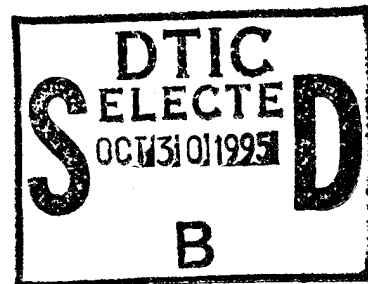
*Lamont-Doherty  
Earth Observatory*  
of Columbia University

P.O. BOX 1000 / RT 9W / PALISADES, NY 10964-8000 USA / 914-359-2900

March 16, 1995

Mr. Martin J. Morris, Adminis. Contracting Officer  
Office of Naval Research  
Boston Regional Office  
495 Summer St., Room 103  
Boston, MA 02210-2109

Re: Final Technical Report  
Contract: NOOO14-93-C-0244  
R & T 4253211---01/29 JUL 1993/324



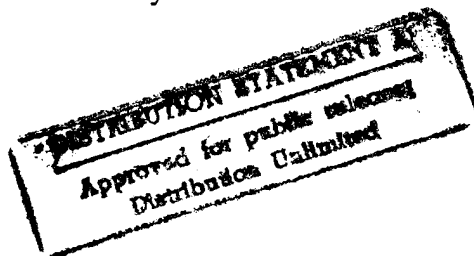
Dear Mr. Morris:

We enclose herewith our final technical report for the above-mentioned contract, entitled, "Digitization and Reanalysis of Analog Sonobuoy (ASPER) Records".

At your request, we are sending this cover letter and a copy of the final report to those mentioned on the Distribution Requirements List, and mentioned below.

If you have any questions, please do not hesitate to contact my office at 914-365-8524, or e-mail me at [johnd@ldeo.columbia.edu](mailto:johnd@ldeo.columbia.edu).

Thank you.



Very truly yours,

*J. B. Diebold* jdg  
John B. Diebold  
Research Scientist  
Principal Investigator

cc: Scientific Officer Code NOOO14 (Dr. R. Jacobson)  
Director, Naval Research Laboratory, Attn: Code 2627  
✓ Defense Technical Information Center Code S47031  
P. Stambaugh, Sr. Contracts Officer, Lamont-Doherty

19951027 060

**Final Technical Report**  
**Contract: NO0014-93-C-0244**  
**R & T 4253211---01/29 JUL 1993/324**

Project Title: "Digitization and Reanalysis of Analog Sonobuoy (ASPER) RECORDS

Principal Investigator: Dr. John B. Diebold

This project involved a multifaceted approach for making the database of analog sonobuoy records and solutions at Lamont more accessible to NAVO (Stennis) personnel.

Each item on a list of seven deliverables was transmitted to NAVO, either in person or by electronic mail:

1. New raytraced solutions of thirty-eight shallow-water sonobuoys recorded aboard Lamont ships in the East China Sea were obtained by iterative forward modeling and delivered as an ASCII file.
2. New software written to access the database of existing solutions was delivered and demonstrated. This software allows location of solutions by search within a specified geographical area, and extraction of the solutions for all previously analyzed Lamont sonobuoys.
3. The existing database of some 4169 sonobuoy solutions was checked, and several kinds of errors were detected and eliminated. These included wrong water depths, mislabeled buoys, and inconsistent or inadequate formats. The resulting database file, in ASCII form and suitable for use with the software described in 2., was delivered.
4. This item, "Software and Documentation to access current data base of solutions" is covered under item 2.
- 5, 6, 7. "JDseis", a large software package for various kinds of interactive analysis of all types of seismic data, was modified to include the scaling of scanned images of analog data. This software, along with its accompanying documentation was delivered to Stennis, along with a large format (12" x 17") black-and-white Fujitsu Scanner. In December, 1993, the principal investigator traveled to Stennis, and for several days, demonstrated the use of the scanner, as well as this and the aforementioned software.

Accession For	
NTIS GRA&I	<input checked="checked" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By <i>per letter enclosed</i>	
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Dist	Avail and/or Special
<i>A-1</i>	

Jacobson, R., J. Diebold, and R. Carlson, 1993. Digitization and Reanalysis of Airgun-Sonobuoy Records; EOS Transactions, Vol. 74, No. 43, p. 451.



OFFICE OF THE UNDER SECRETARY OF DEFENSE (ACQUISITION)  
DEFENSE TECHNICAL INFORMATION CENTER  
CAMERON STATION  
ALEXANDRIA, VIRGINIA 22304-6145

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SUBJECT: Distribution Statements on Technical Documents

TO: OFFICE OF NAVAL RESEARCH  
CORPORATE PROGRAMS DIVISION  
ONR 353  
800 NORTH QUINCY STREET  
ARLINGTON, VA 22217-5660

1. Reference: DoD Directive 5230.24, Distribution Statements on Technical Documents, 18 Mar 87.

2. The Defense Technical Information Center received the enclosed report (referenced below) which is not marked in accordance with the above reference.

FINAL REPORT  
N00014-93-C-0244  
TITLE: DIGITIZATION AND  
REANALYSIS OF ANALOG  
SONOBUOY

3. We request the appropriate distribution statement be assigned and the report returned to DTIC within 5 working days.

4. Approved distribution statements are listed on the reverse of this letter. If you have any questions regarding these statements, call DTIC's Cataloging Branch, (703) 274-6837.

FOR THE ADMINISTRATOR:

1 Encl

GOPALAKRISHNAN NAIR  
Chief, Cataloging Branch

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DISCLOSURE, 6 Nov 1984 (Indicate date of determination). CONTROLLING DOD OFFICE IS (Indicate  
Controlling DoD Office).

The cited documents has been reviewed by competent authority and the following distribution statement is  
hereby authorized.

A  
(Statement)

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ONR 353  
800 NORTH QUINCY STREET  
ARLINGTON, VA 22217-5660

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(Controlling DoD Office Name)

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(Reason)

DEBRA T. HUGHES  
DEPUTY DIRECTOR  
CORPORATE PROGRAMS OFFICE

Debra T. Hughes  
(Signature & Typed Name)

\_\_\_\_\_  
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19 SEP 1985

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(Date Statement Assigned)